FIG. 1

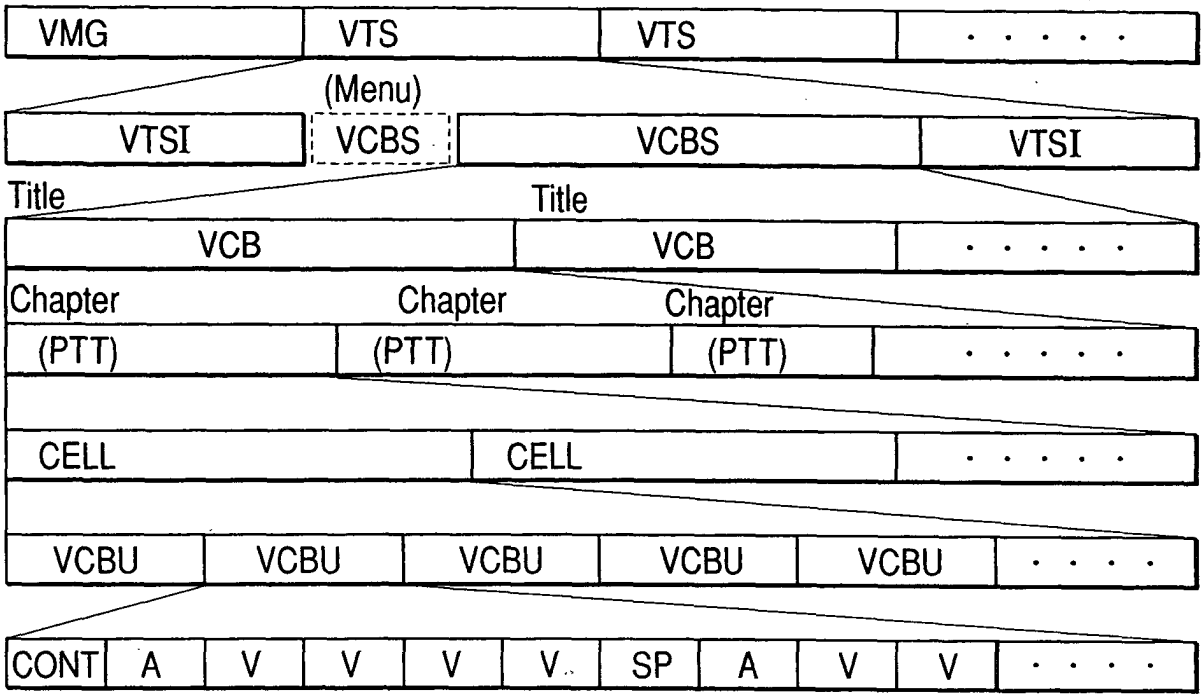

VMG
VTS
VTS
(Menu)
VTSI
VCBS
VCBS
VTSI
Title
Title
VCB
VCB
Chapter
Chapter
Chapter
(PTT)
(PTT)
(PTT)
CELL
CELL
VCBU
VCBU
VCBU
VCBU
VCBU
CONT
A
V
V
V
V
SP
A
V
V

FIG. 2

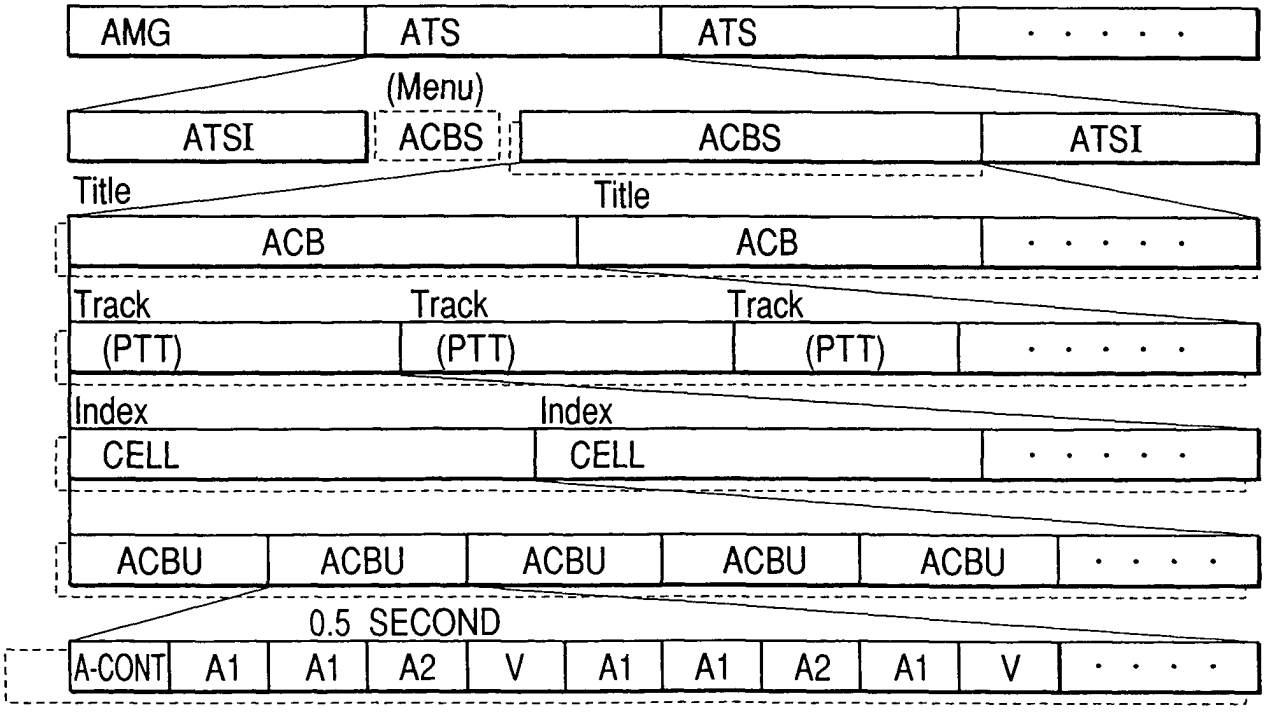

AMG
ATS
ATS
(Menu)
ATSI
ACBS
ACBS
ATSI
Title
Title
ACB
ACB
Track
Track
Track
(PTT)
(PTT)
(PTT)
Index
Index
CELL
CELL
ACBU
ACBU
ACBU
ACBU
ACBU
0.5 SECOND
A-CONT
A1
A1
A2
V
A1
A1
A2
A1
V

FIG. 3

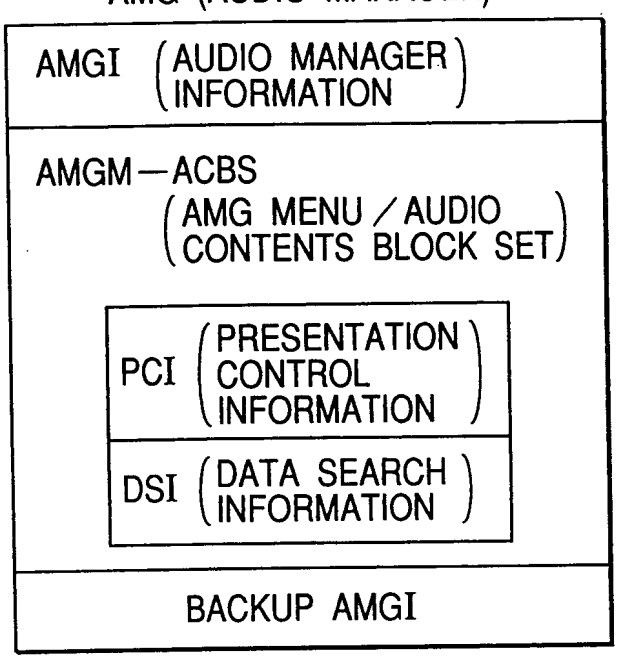

AMG (AUDIO MANAGER)
AMGI (AUDIO MANAGER INFORMATION)
AMGM—ACBS (AMG MENU / AUDIO CONTENTS BLOCK SET)
PCI (PRESENTATION CONTROL INFORMATION)
DSI (DATA SEARCH INFORMATION)
BACKUP AMGI

FIG. 4

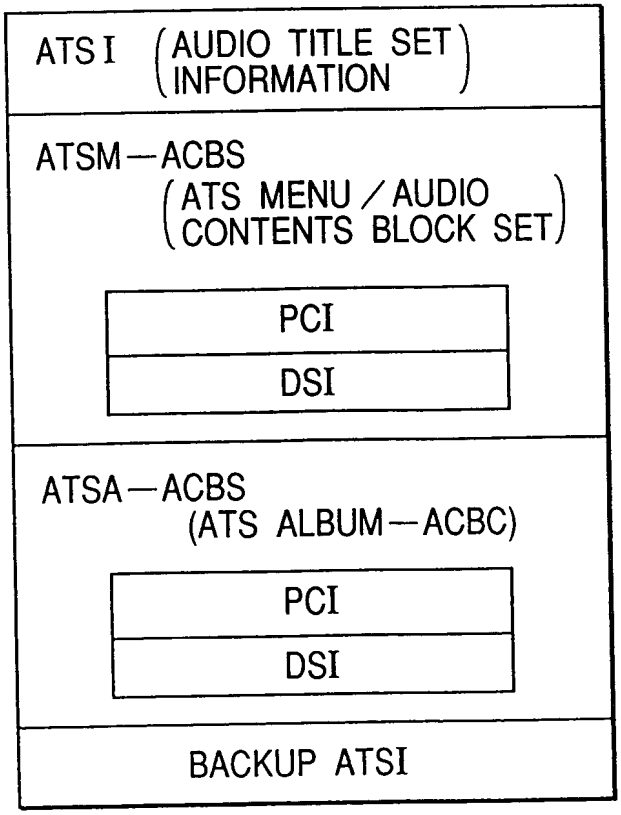

ATS (AUDIO TITLE SET)
ATSI (AUDIO TITLE SET INFORMATION)
ATSM—ACBS (ATS MENU / AUDIO CONTENTS BLOCK SET)
PCI
DSI
ATSA—ACBS (ATS ALBUM—ACBC)
PCI
DSI
BACKUP ATSI

FIG. 5

AMGI (AUDIO MANAGER INFORMATION)

AMGI—MAT (AMGI MANAGEMENT TABLE)
T—SRPT (TITLE SEARCH POINTER TABLE)
AMGM—PGCI—UT (AUDIO MANAGER MENU PGCI UNIT TABLE)
PTL—MAIT (PARENTAL MANAGEMENT INFORMATION TABLE)
ATS—ATRT (AUDIO TITLE SET ATTRIBUTE TABLE)
TXTDT—MG (TEXT DATA MANAGER)
AMGM—C—ADT (AMGM CELL ADDRESS TABLE)
AMGM—ACBU—ADMAP (AMGM—ACBU— ADDRESS MAP)

FIG. 6

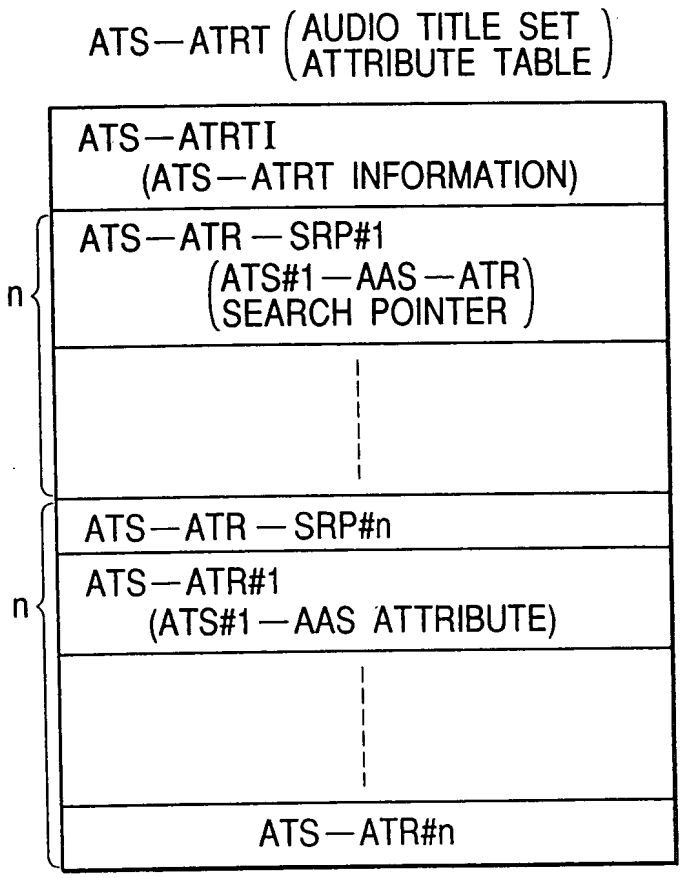

ATS—ATRT (AUDIO TITLE SET ATTRIBUTE TABLE)
ATS—ATRTI (ATS—ATRT INFORMATION)
n
ATS—ATR—SRP#1 (ATS#1—AAS—ATR SEARCH POINTER)
ATS—ATR—SRP#n
n
ATS—ATR#1 (ATS#1—AAS ATTRIBUTE)
ATS—ATR#n

FIG. 7

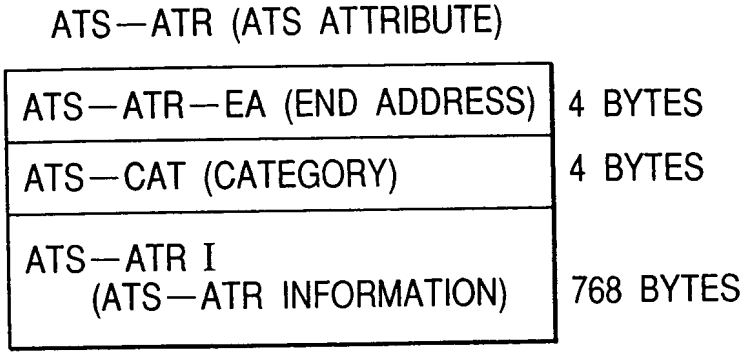

ATS—ATR (ATS ATTRIBUTE)
ATS—ATR—EA (END ADDRESS)
4 BYTES
ATS—CAT (CATEGORY)
4 BYTES
ATS—ATR I (ATS—ATR INFORMATION)
768 BYTES

FIG. 8

ATSI (AUDIO TITLE SET INFORMATION)

ATSI—MAT (ATSI MANAGEMENT TABLE)
ATS—PTT—SRPT (ATS PART OF TITLE SEARCH POINTER TABLE)
ATS—PGCIT (ATS PROGRAM CHAIN INFORMATION TABLE)
ATSM—PGCI—UT (ATS MENU PROGRAM CHAIN UNIT TABLE)
ATS—TMAPT (ATS TIME MAP TABLE)
ATSM—C—ADT (ATS MENU CELL ADDRESS TABLE)
ATSM—ACBU—ADMAP (ATS MENU ACBU ADDRESS MAP)
ATS—C—ADT (ATS CELL ADDRESS TABLE)
ATS—ACBU—ADMAP (ATS—ACBU—ADDRESS MAP)

FIG. 9

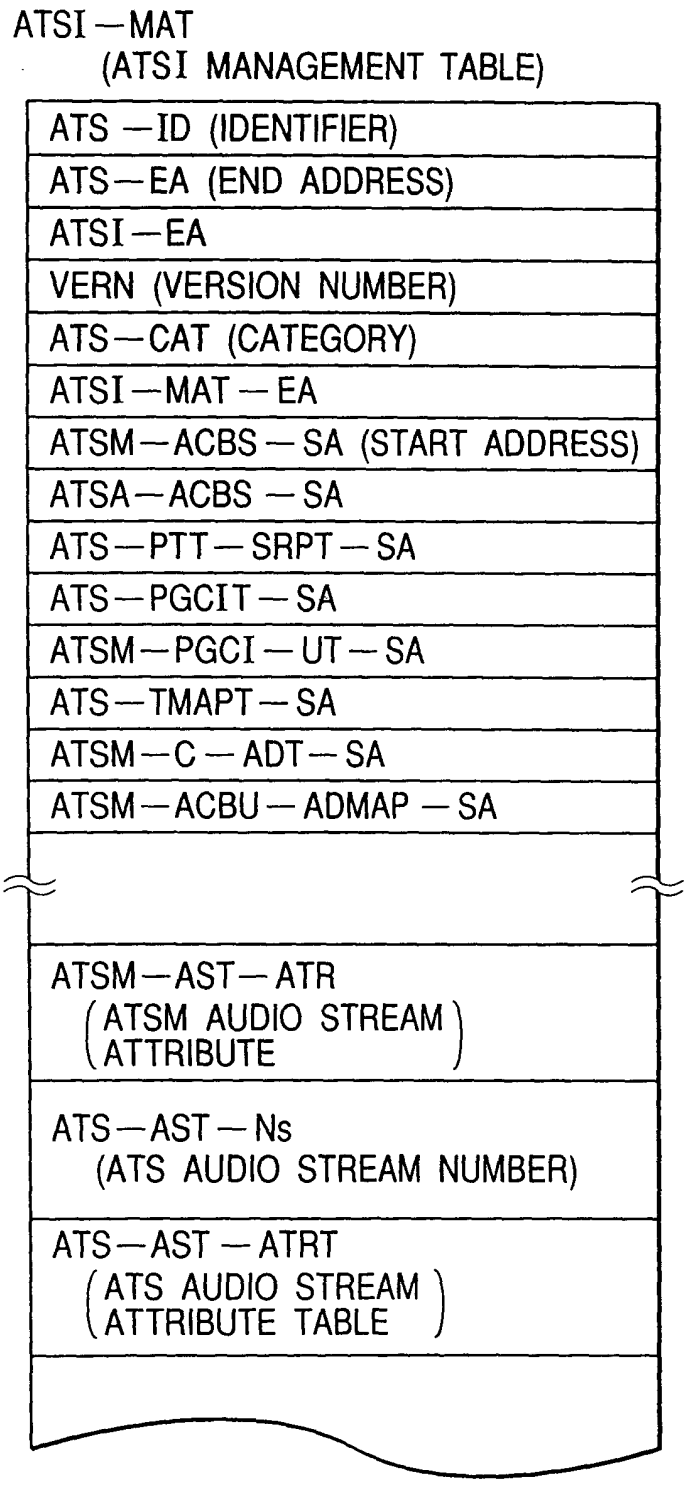

ATSI—MAT
(ATSI MANAGEMENT TABLE)
ATS —ID (IDENTIFIER)
ATS—EA (END ADDRESS)
ATSI—EA
VERN (VERSION NUMBER)
ATS—CAT (CATEGORY)
ATSI—MAT—EA
ATSM—ACBS—SA (START ADDRESS)
ATSA—ACBS—SA
ATS—PTT—SRPT—SA
ATS—PGCIT—SA
ATSM—PGCI—UT—SA
ATS—TMAPT—SA
ATSM—C—ADT—SA
ATSM—ACBU—ADMAP—SA
ATSM—AST—ATR
(ATSM AUDIO STREAM ATTRIBUTE)
ATS—AST—Ns
(ATS AUDIO STREAM NUMBER)
ATS—AST—ATRT
(ATS AUDIO STREAM ATTRIBUTE TABLE)

FIG. 10

ATSM—AST—ATR (AUDIO TITLE SET MENU AUDIO STREAM ATTRIBUTE DATA)

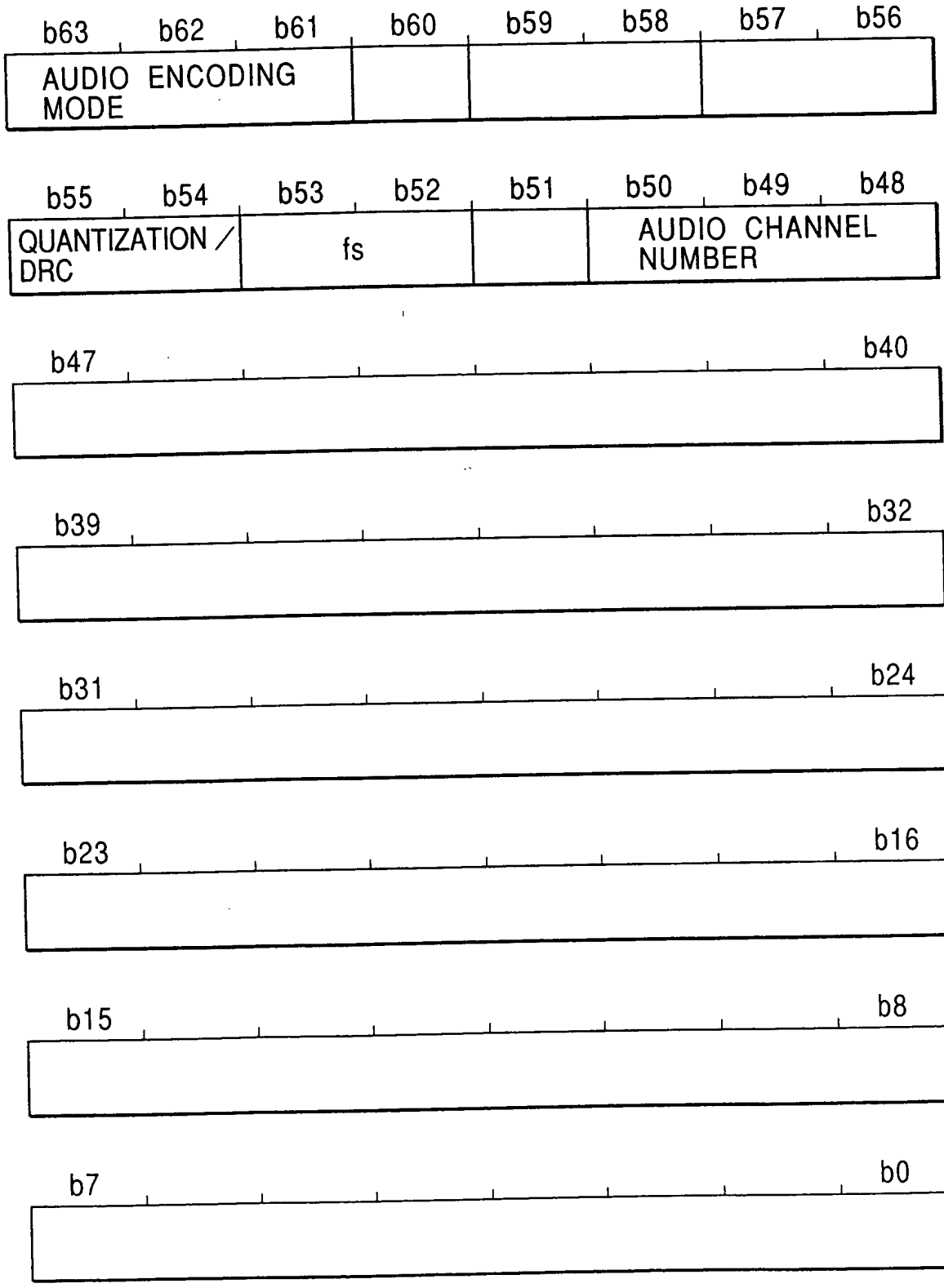


FIG. 11

ATS—AST—ATRT

AUDIO STREAM	(AST) #0	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #1	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #2	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #3	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #4	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #5	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #6	ATS—AST—ATR	8 BYTES
AUDIO STREAM	(AST) #7	ATS—AST—ATR	8 BYTES

FIG. 12

ATS—AST—ATR (AUDIO TITLE SET AUDIO STREAM ATTRIBUTE DATA)

b63	b62	b61	b60	b59	b58	b57	b56
AUDIO ENCODING MODE			ME	AUDIO TYPE		AUDIO APRICATION MODE	

b55	b54	b53	b52	b51	b50	b49	b48
QUANTIZATION / DRC		fs			AUDIO CHANNEL NUMBER		

b47	b46	b45	b44				b40
AST THINNING		LFE THINNING					

b39							b32

b31							b24

b23							b16

b15							b8

b7							b0

FIG. 13

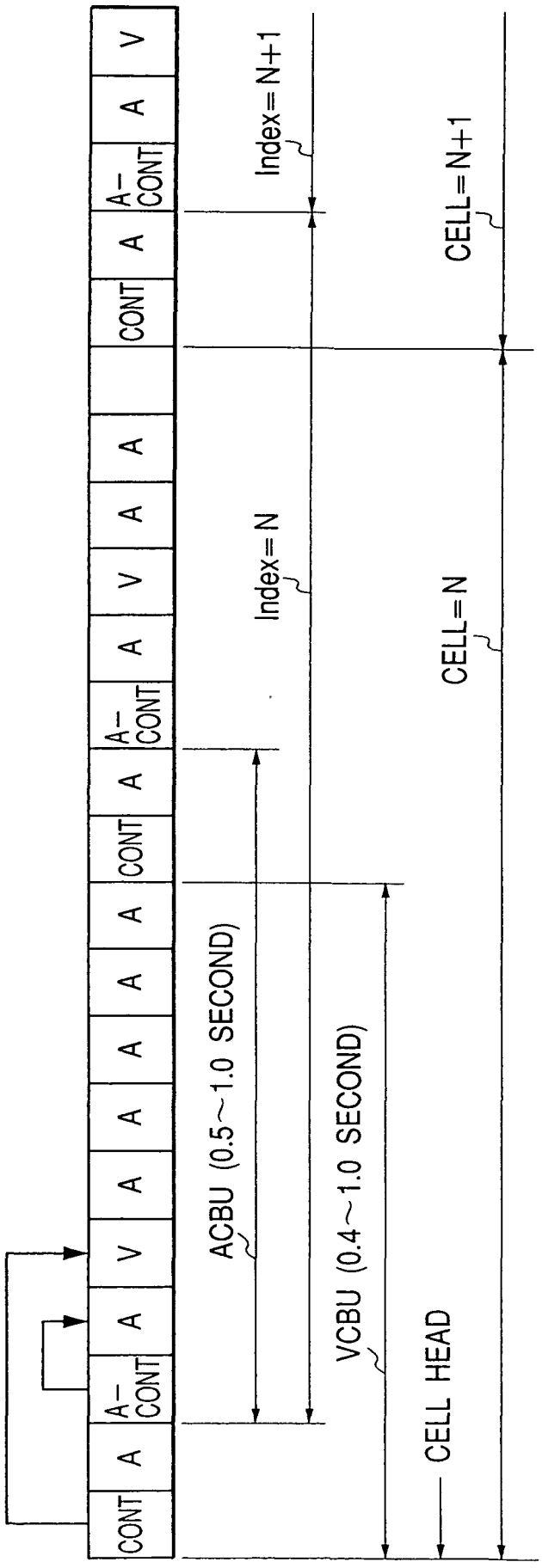

CONT
A
A–CONT
V
A
A
A
A
A
A
CONT
A
A–CONT
A
V
A
A
CONT
A
A–CONT
V
A
ACBU (0.5～1.0 SECOND)
VCBU (0.4～1.0 SECOND)
CELL HEAD
Index= N
Index= N+1
CELL= N
CELL= N+1

FIG. 14

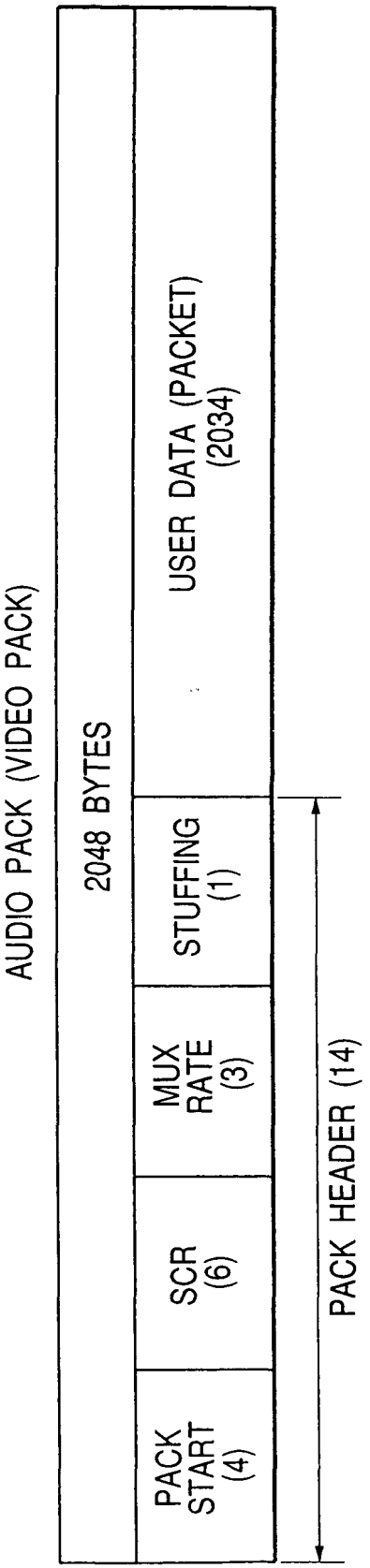

AUDIO PACK (VIDEO PACK)
2048 BYTES
PACK START (4)
SCR (6)
MUX RATE (3)
STUFFING (1)
USER DATA (PACKET) (2034)
PACK HEADER (14)

FIG. 15

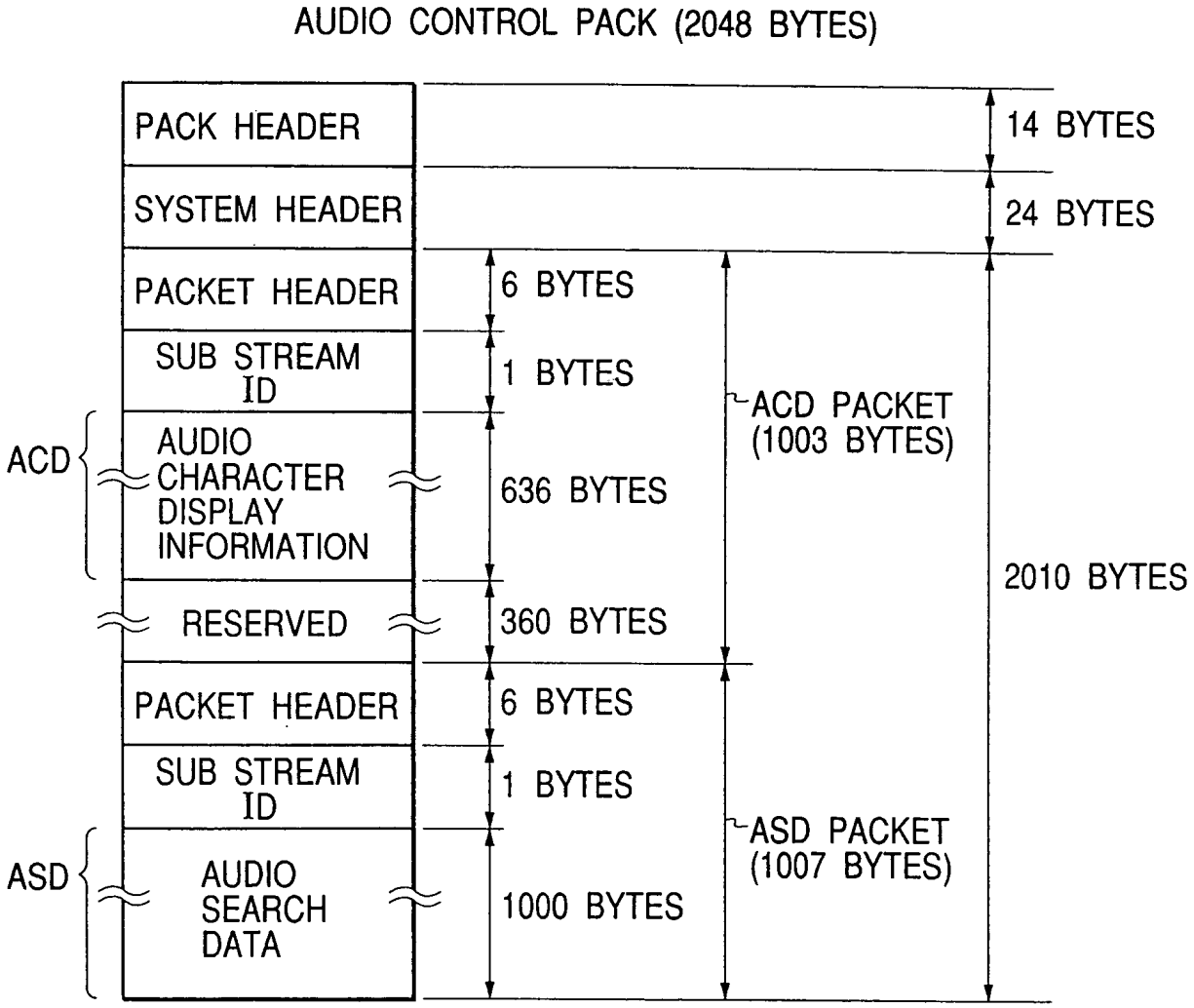

AUDIO CONTROL PACK (2048 BYTES)
PACK HEADER
SYSTEM HEADER
PACKET HEADER
SUB STREAM ID
AUDIO CHARACTER DISPLAY INFORMATION
RESERVED
PACKET HEADER
SUB STREAM ID
AUDIO SEARCH DATA
ACD
ASD
6 BYTES
1 BYTES
636 BYTES
360 BYTES
6 BYTES
1 BYTES
1000 BYTES
14 BYTES
24 BYTES
ACD PACKET (1003 BYTES)
ASD PACKET (1007 BYTES)
2010 BYTES

FIG. 16

ACD (636 BYTES)

GENERAL INFORMATION	48 BYTES	
NAME SPACE	93 BYTES	93 BYTES
FREE SPACE 1	93 BYTES	93 BYTES
FREE SPACE 2	93 BYTES	93 BYTES
DATA POINTER	15 BYTES	15 BYTES
TOTAL	294 BYTES	294 BYTES
	FIRST LANGUAGE	SECOND LANGUAGE

FIG. 17

キョクモクカイセツ
前作のエディング曲
"FORGET-ME-NOT"

FIG. 18

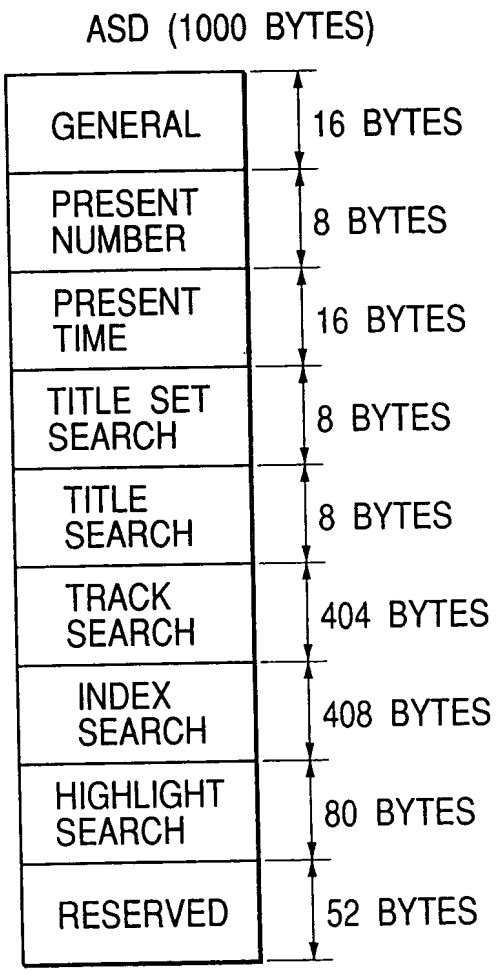

ASD (1000 BYTES)
GENERAL
16 BYTES
PRESENT NUMBER
8 BYTES
PRESENT TIME
16 BYTES
TITLE SET SEARCH
8 BYTES
TITLE SEARCH
8 BYTES
TRACK SEARCH
404 BYTES
INDEX SEARCH
408 BYTES
HIGHLIGHT SEARCH
80 BYTES
RESERVED
52 BYTES

FIG. 19

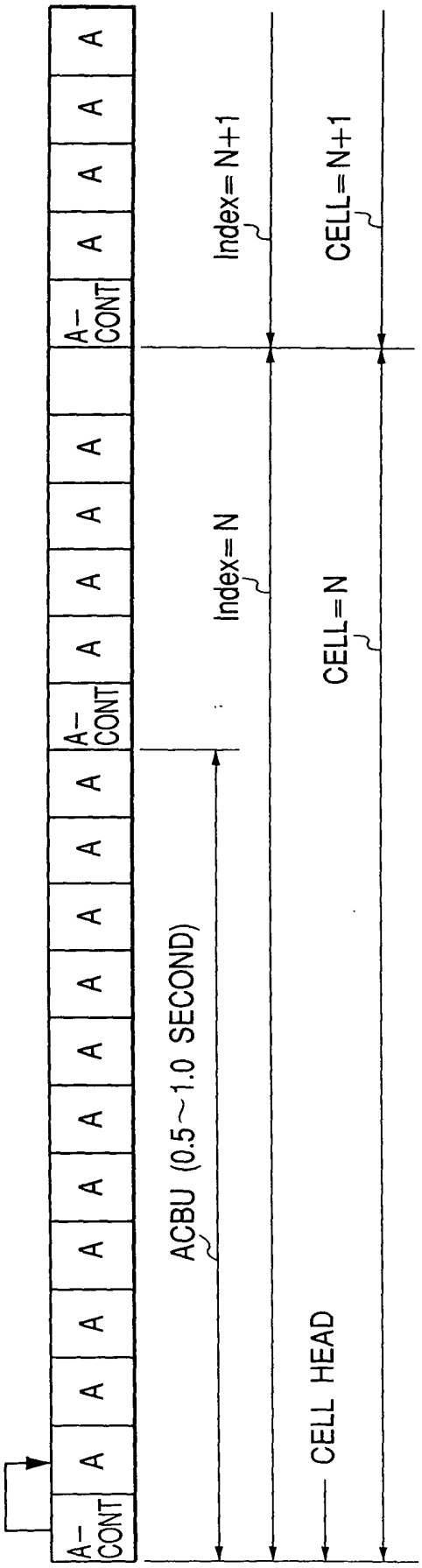

A-CONT
A
ACBU (0.5～1.0 SECOND)
Index= N
Index= N+1
CELL= N
CELL= N+1
CELL HEAD

FIG. 20

	2CH (STEREO)	6CH	8CH	Mbps	TIME (MIN)	ABOVE 80MIN
2ch	48khz /16bit (1.536Mbps) 48khz /20bit (1.920Mbps) 48khz /24bit (2.304Mbps)			1.536 1.920 2.304	387 310 258	* * *
	96khz /16bit (3.072Mbps) 96khz /20bit (3.804Mbps) 96khz /24bit (4.608Mbps)			3.072 3.804 4.608	194 156 129	* * *
	192khz /16bit (6.144Mbps) 192khz /20bit (7.680Mbps) 192khz /24bit (9.216Mbps)			6.144 7.680 9.216	97 78 65	*
2+6ch	48khz /16bit (1.536Mbps)	48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps)		6.144 7.296 8.448	97 82 70	* *
	48khz /20bit (1.920Mbps)	48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps)		6.528 7.680 8.832	91 78 67	*
	48khz /24bit (2.304Mbps)	48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps)		6.912 8.064 9.216	86 74 65	*
	96khz /16bit (3.072Mbps)	48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps)		7.680 8.832	78 67	
	96khz /20bit (3.840Mbps)	48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps)		8.448 9.600	71 62	
	96khz /24bit (4.608Mbps)	48khz /16bit (4.608Mbps)		9.216	65	
2+8ch	48khz /16bit (1.536Mbps)		48khz /16bit (6.144Mbps) 48khz /20bit (7.680Mbps)	7.680 9.216	78 65	
	48khz /20bit (1.920Mbps)		48khz /16bit (6.144Mbps) 48khz /20bit (7.680Mbps)	8.064 9.600	74 62	
6ch		48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps) 96khz /16bit (9.216Mbps)		4.608 5.760 6.912 5.216	129 103 86 65	* *
8ch			48khz /16bit (6.144Mbps) 48khz /20bit (7.680Mbps) 48khz /24bit (9.216Mbps)	6.144 7.680 9.216	97 78 65	*

FIG. 21

	2CH	FRONT 3CH	REAR 2CH, LFE 1CH	Mbps	TIME
2+6ch	48khz /16bit (1.536Mbps)	96khz /16bit (4.608Mbps)	48khz /16bit (2.304Mbps)	8.448	70
	〃	96khz /20bit (5.760Mbps)	48khz /16bit (2.304Mbps)	9.6	62
	48khz /20bit (1.920Mbps)	96khz /16bit (4.608Mbps)	48khz /16bit (2.304Mbps)	8.832	67

FIG. 22

	2CH	FRONT 3CH	REAR 2CH	Mbps	TIME
2+5ch	48khz /16bit (1.536Mbps)	96khz /20bit (5.760Mbps)	48khz /16bit (1.536Mbps)	8.832	67
	48khz /20bit (1.920Mbps)	96khz /20bit (5.760Mbps)	48khz /16bit (1.536Mbps)	9.216	65
	48khz /20bit (1.920Mbps)	96khz /20bit (5.760Mbps)	48khz /20bit (1.920Mbps)	9.6	62

FIG. 23

		FRONT 3CH	REAR 2CH, LFE 1CH	Mbps	TIME
6ch		96khz /16bit (4.608Mbps)	48khz /16bit (2.304Mbps)	6.912	86
		96khz /20bit (5.760Mbps)	48khz /16bit (2.304Mbps)	8.064	74
			48khz /20bit (2.880Mbps)	8.64	68
			48khz /24bit (3.456Mbps)	9.216	65
		96khz /24bit (6.912Mbps)	48khz /16bit (2.304Mbps)	9.216	65

FIG. 24

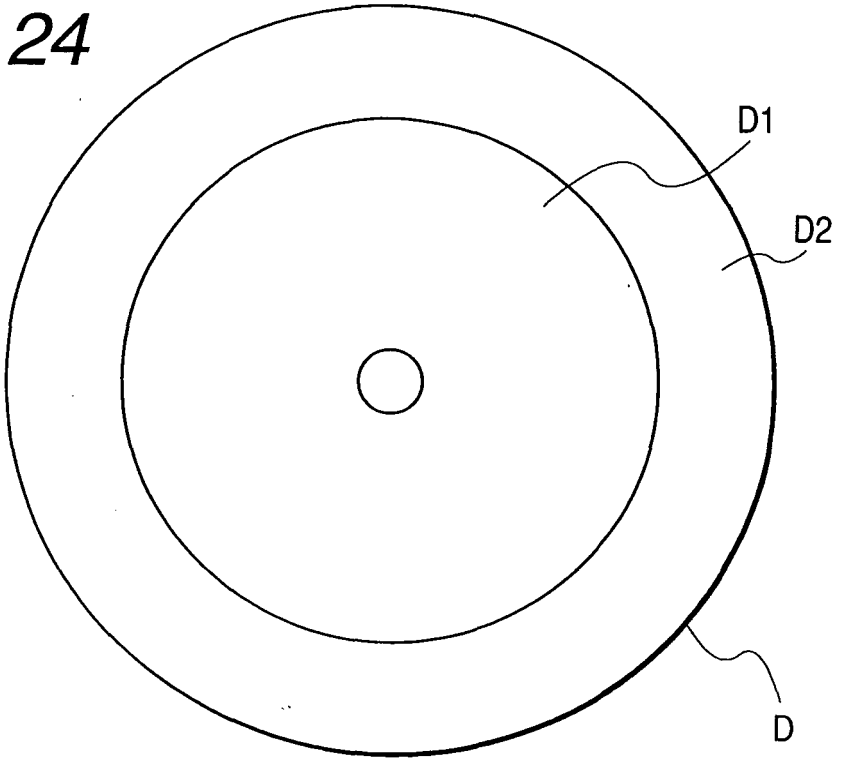

D1
D2
D

FIG. 25

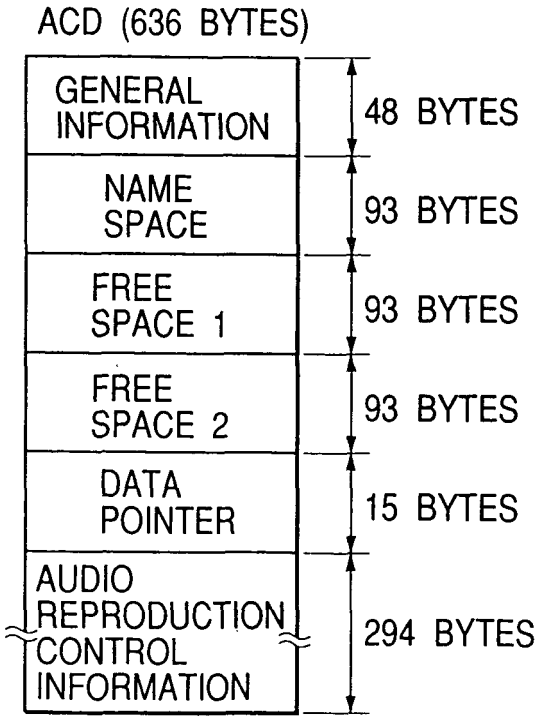

ACD (636 BYTES)
GENERAL INFORMATION
48 BYTES
NAME SPACE
93 BYTES
FREE SPACE 1
93 BYTES
FREE SPACE 2
93 BYTES
DATA POINTER
15 BYTES
AUDIO REPRODUCTION CONTROL INFORMATION
294 BYTES

FIG. 26

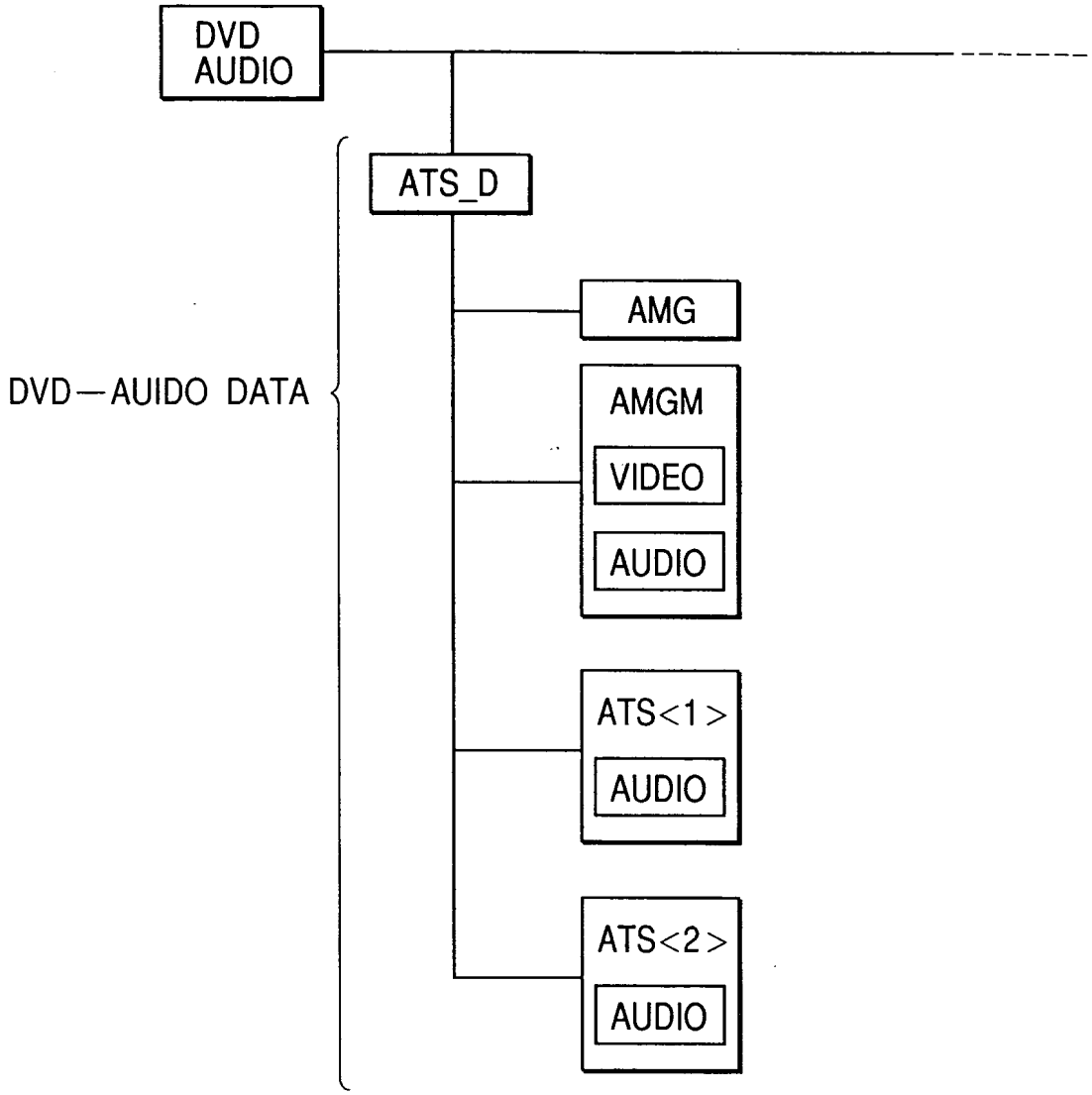

DVD
AUDIO
ATS_D
AMG
DVD—AUIDO DATA
AMGM
VIDEO
AUDIO
ATS<1>
AUDIO
ATS<2>
AUDIO

FIG. 27

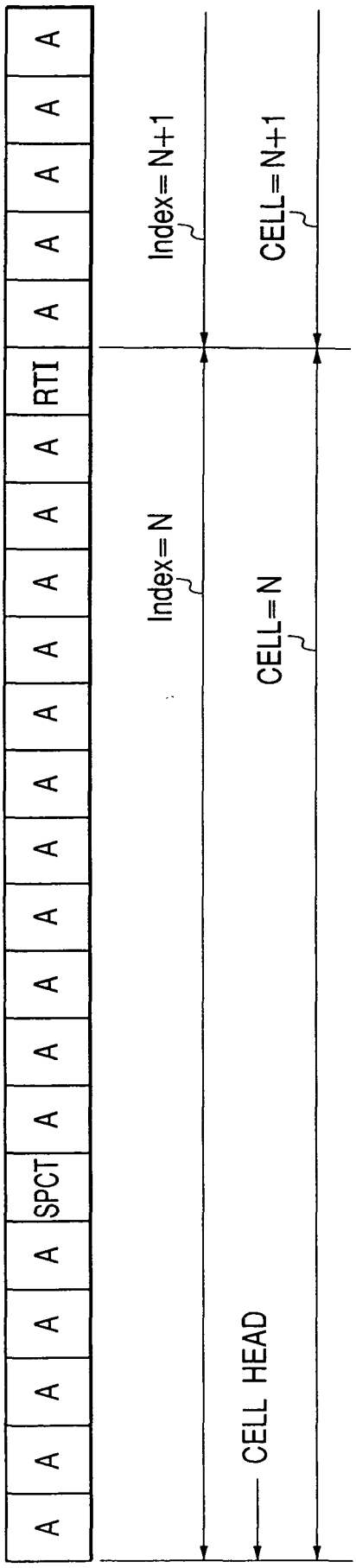

A
A
A
A
A
SPCT
A
A
A
A
A
A
A
A
A
RTI
A
A
A
A
CELL HEAD
Index= N
CELL= N
Index= N+1
CELL= N+1

FIG. 28

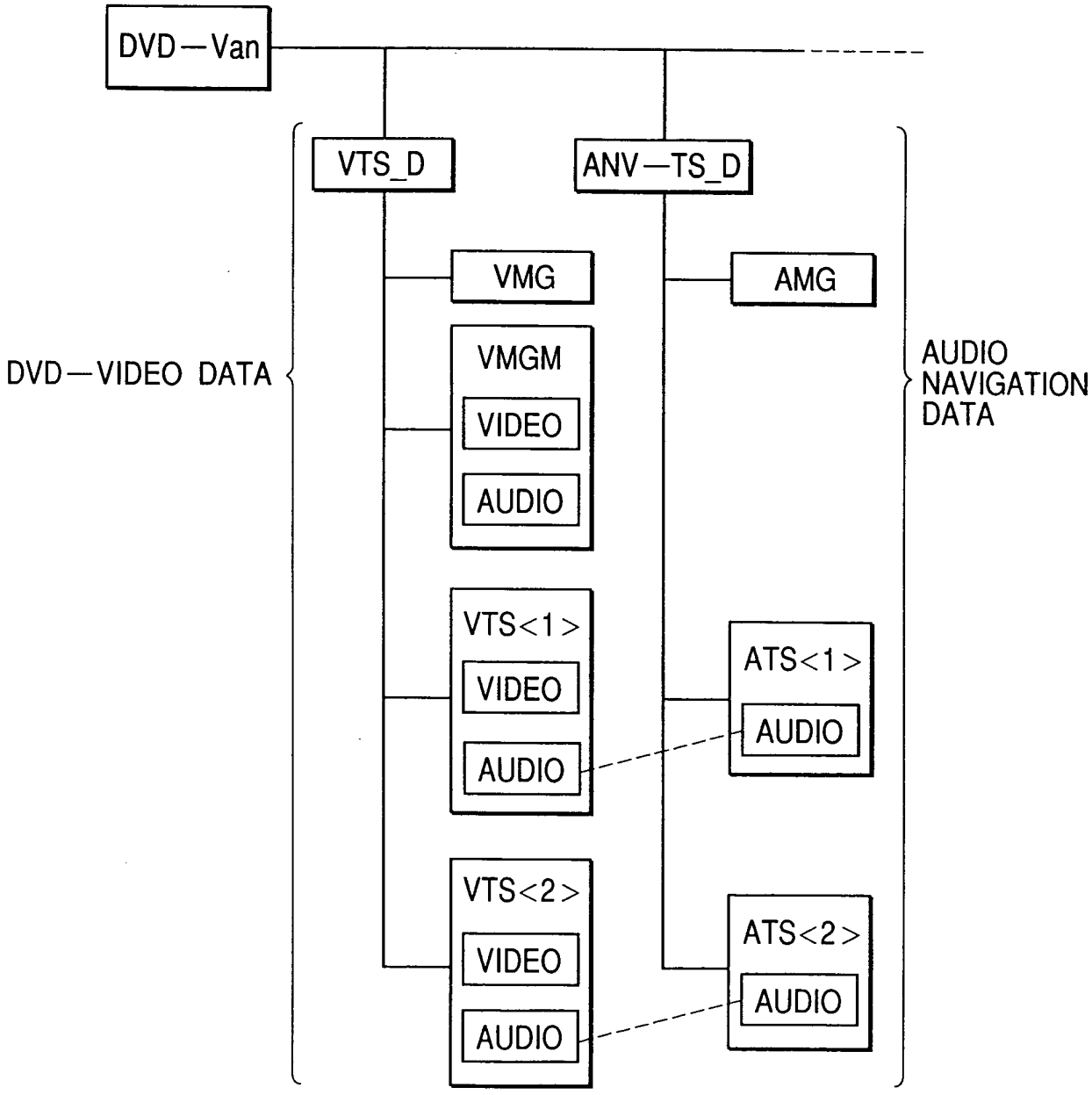

DVD—Van
VTS_D
ANV—TS_D
VMG
AMG
VMGM
VIDEO
AUDIO
VTS<1>
VIDEO
AUDIO
ATS<1>
AUDIO
VTS<2>
VIDEO
AUDIO
ATS<2>
AUDIO
DVD—VIDEO DATA
AUDIO NAVIGATION DATA

FIG. 29

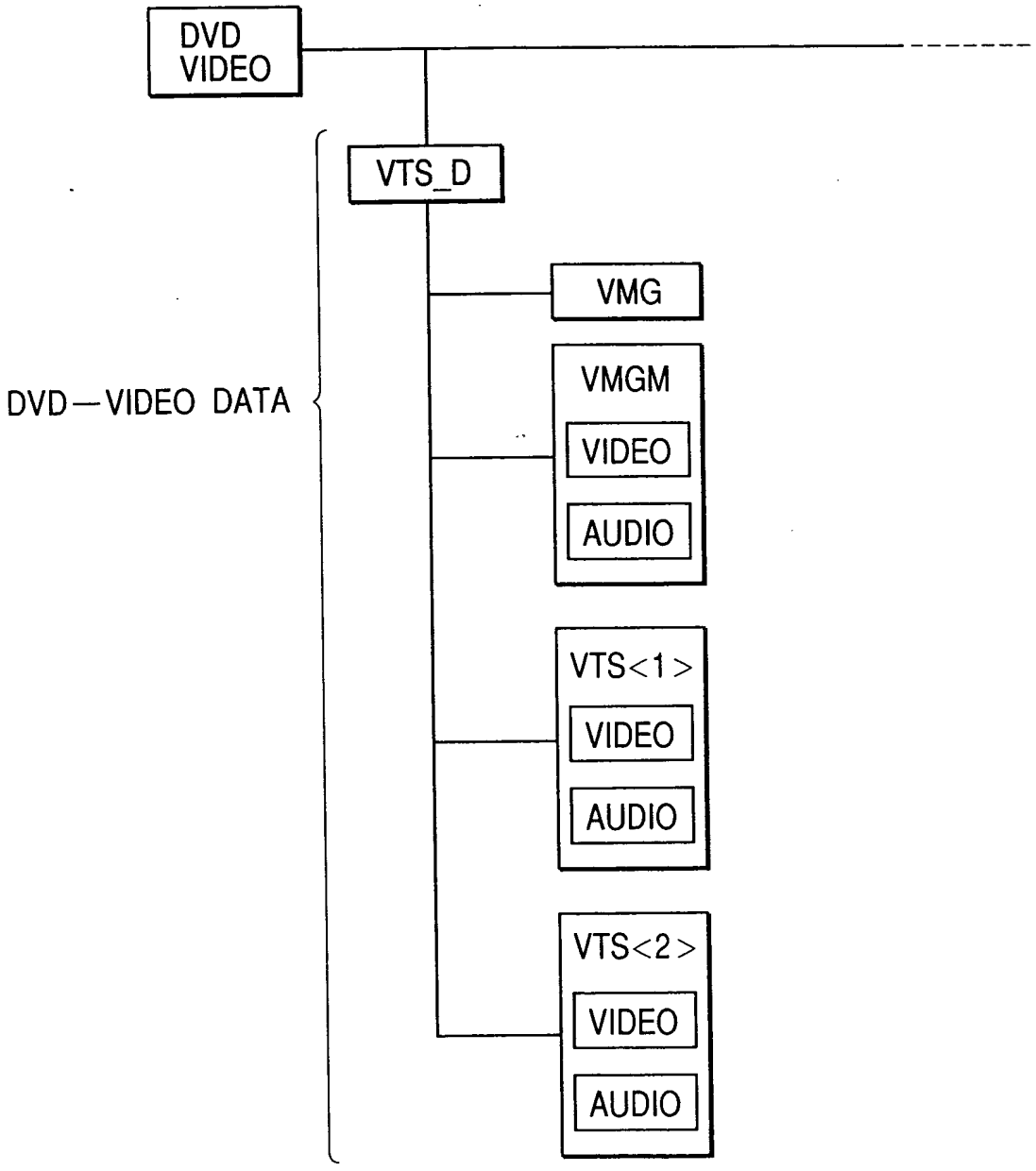

DVD
VIDEO
VTS_D
VMG
VMGM
VIDEO
AUDIO
VTS<1>
VIDEO
AUDIO
VTS<2>
VIDEO
AUDIO
DVD—VIDEO DATA

FIG. 30

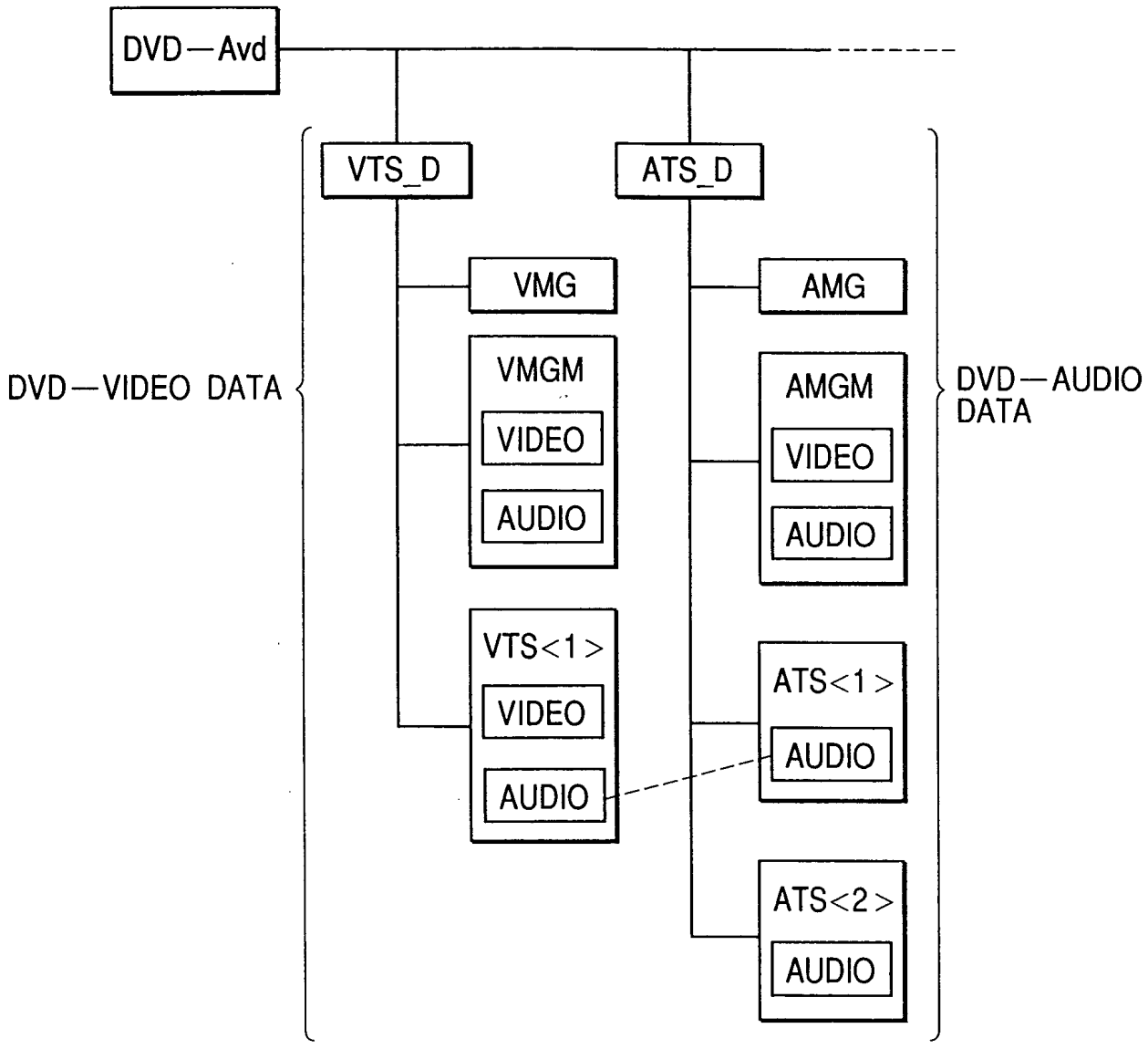

DVD—Avd
VTS_D
ATS_D
VMG
AMG
VMGM
VIDEO
AUDIO
AMGM
VIDEO
AUDIO
VTS<1>
VIDEO
AUDIO
ATS<1>
AUDIO
ATS<2>
AUDIO
DVD—VIDEO DATA
DVD—AUDIO DATA

FIG. 31

AOTT—AOB—ATR

b127	b126	b125	b124	b123	b122	b121	b120
AUDIO ENCODING MODE							
b119	b118	b117	b116	b115	b114	b113	b112
b111	b110	b109	b108	b107	b106	b105	b104
Q1				Q2			
b103	b102	b101	b100	b99	b98	b97	b96
fs1				fs2			
b95	b94	b93	b92	b91	b90	b89	b88
MULTICHANNEL STRUCTURE TYPE			CHANNEL ASSIGNMENT				
b87	b86	b85	b84	b83	b82	b81	b80
b79	b78	b77	b76	b75	b74	b73	b72
b71	b70	b69	b68	b67	b66	b65	b64
b63	b62	b61	b60	b59	b58	b57	b56
b55	b54	b53	b52	b51	b50	b49	b48
b47	b46	b45	b44	b43	b42	b41	b40
b39	b38	b37	b36	b35	b34	b33	b32
b31	b30	b29	b28	b27	b26	b25	b24
b23	b22	b21	b20	b19	b18	b17	b16
b15	b14	b13	b12	b11	b10	b9	b8
b7	b6	b5	b4	b3	b2	b1	b0

FIG. 32

CHANNEL ASSIGNMENT INFORMATION (BIT PATTERN)	CHANNEL STRUCTURE OF GROUPS 1, 2						CHANNEL NUMBER IN GROUP 1	CHANNEL NUMBER IN GROUP 2
	ACH0	ACH1	ACH2	ACH3	ACH4	ACH5		
00000b	C(mono)	none	none	none	none	none	1	0
00001b	L	R	none	none	none	none	2	0
00010b	Lf	Rf	S	none	none	none	2	1
00011b	Lf	Rf	Ls	Rs	none	none	2	2
00100b	Lf	Rf	LFE	none	none	none	2	1
00101b	Lf	Rf	LFE	S	none	none	2	2
00110b	Lf	Rf	LFE	Ls	Rs	none	2	3
00111b	Lf	Rf	C	none	none	none	2	1
01000b	Lf	Rf	C	S	none	none	2	2
01001b	Lf	Rf	C	Ls	Rs	none	2	3
01010b	Lf	Rf	C	LFE	none	none	2	2
01011b	Lf	Rf	C	LFE	S	none	2	3
01100b	Lf	Rf	C	LFE	Ls	Rs	2	4
01101b	Lf	Rf	C	S	none	none	3	1
01110b	Lf	Rf	C	Ls	Rs	none	3	2
01111b	Lf	Rf	C	LFE	none	none	3	1
10000b	Lf	Rf	C	LFE	S	none	3	2
10001b	Lf	Rf	C	LFE	Ls	Rs	3	3
10010b	Lf	Rf	Ls	Rs	LFE	none	4	1
10011b	Lf	Rf	Ls	Rs	C	none	4	1
10100b	Lf	Rf	Ls	Rs	C	LFE	4	2
OTHERS	RESERVED							

CHANNEL GROUP 1 | CHANNEL GROUP 2

FIG. 33

LINEAR PCM AUDIO PACK

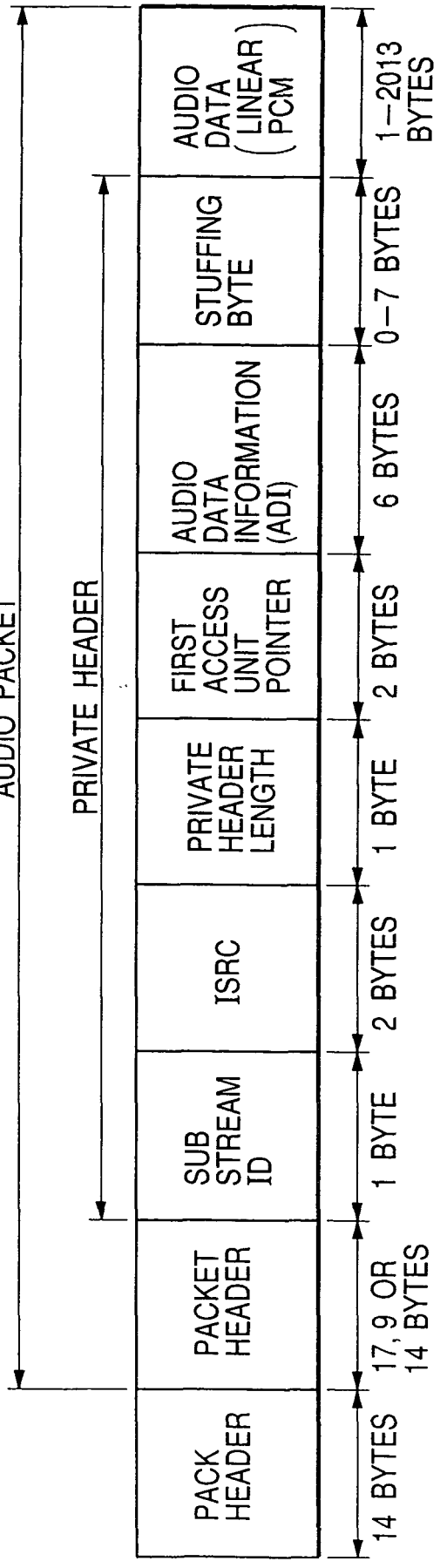


FIG. 34

LINEAR PCM PRIVATE HEADER

	FILED	BIT NUMBER	BYTE NUMBER
	SUB STREAM ID	8	1
	RESERVED	4	2
	ISRC NUMBER	4	
	ISRC DATA	8	
	PRIVATE HEADER LENGTH	8	1
	FIRST ACCESS UNIT POINTER	16	2
ADI	AUDIO EMPHASIS FLAG	1	1
ADI	RESERVED	1	
ADI	RESERVED	2	
ADI	DOWN MIX CODE	4	
ADI	QUANTIZATION WORD LENGTH 1	4	1
ADI	QUANTIZATION WORD LENGTH 2	4	
ADI	AUDIO SAMPLING FREQUENCY fs 1	4	1
ADI	AUDIO SAMPLING FREQUENCY fs 2	4	
ADI	RESERVED	4	1
ADI	MULTICHANNEL TYPE	4	
ADI	RESERVED	3	1
ADI	CHANNEL ASSIGNMENT	5	
ADI	DYNAMIC RANGE CONTROL	8	1
	STUFFING BYTE	—	0—7

FIG. 35

AOTT—VOB—AST—ATR

b127	b126	b125	b124	b123	b122	b121	b120
AUDIO ENCODING MODE							
b119	b118	b117	b116	b115	b114	b113	b112
b111	b110	b109	b108	b107	b106	b105	b104
Q							
b103	b102	b101	b100	b99	b98	b97	b96
fs							
b95	b94	b93	b92	b91	b90	b89	b88
MULTICHANNEL STRUCTURE TYPE			CHANNEL ASSIGNMENT				
b87	b86	b85	b84	b83	b82	b81	b80
DECODING AUDIO STREAM NUMBER							
b79	b78	b77	b76	b75	b74	b73	b72
MPEG AUDIO DRC				COMPRESSION AUDIO CHANNEL NUMBER			
b71	b70	b69	b68	b67	b66	b65	b64
b63	b62	b61	b60	b59	b58	b57	b56
b55	b54	b53	b52	b51	b50	b49	b48
b47	b46	b45	b44	b43	b42	b41	b40
b39	b38	b37	b36	b35	b34	b33	b32
b31	b30	b29	b28	b27	b26	b25	b24
b23	b22	b21	b20	b19	b18	b17	b16
b15	b14	b13	b12	b11	b10	b9	b8
b7	b6	b5	b4	b3	b2	b1	b0

FIG. 36

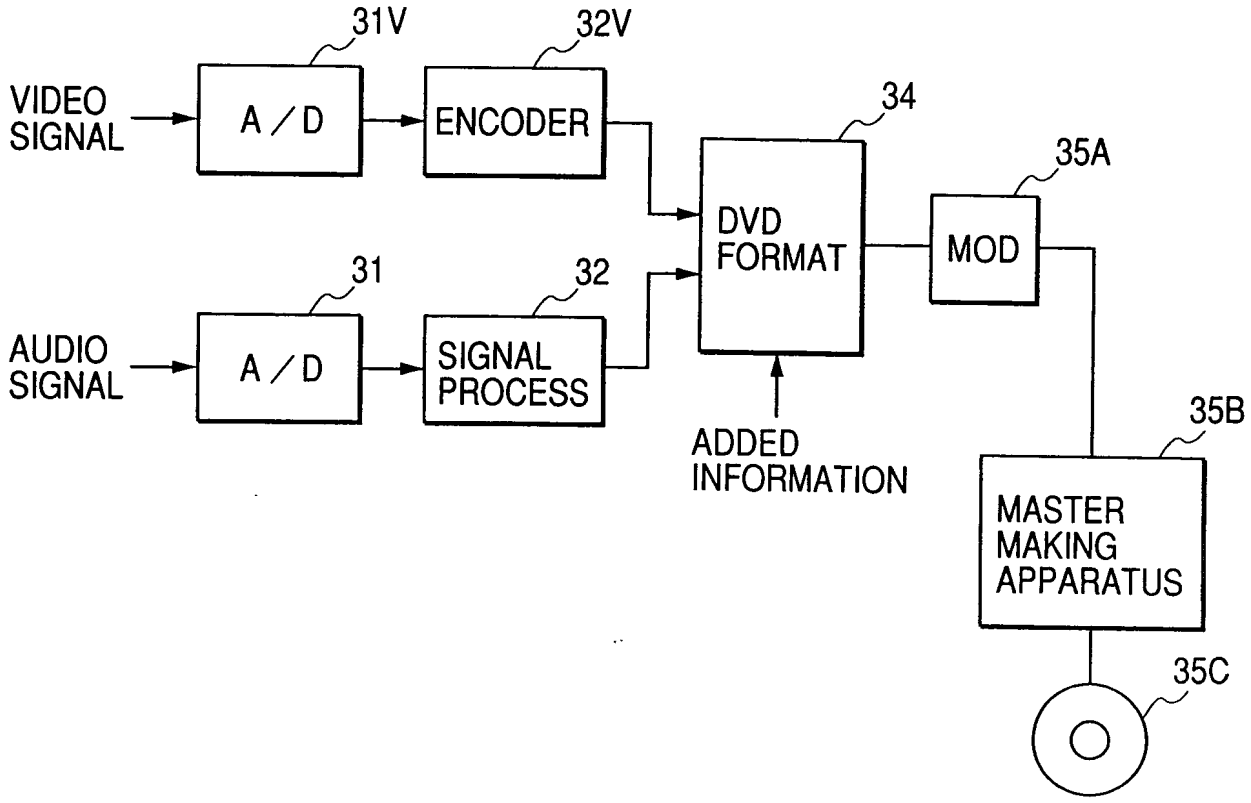
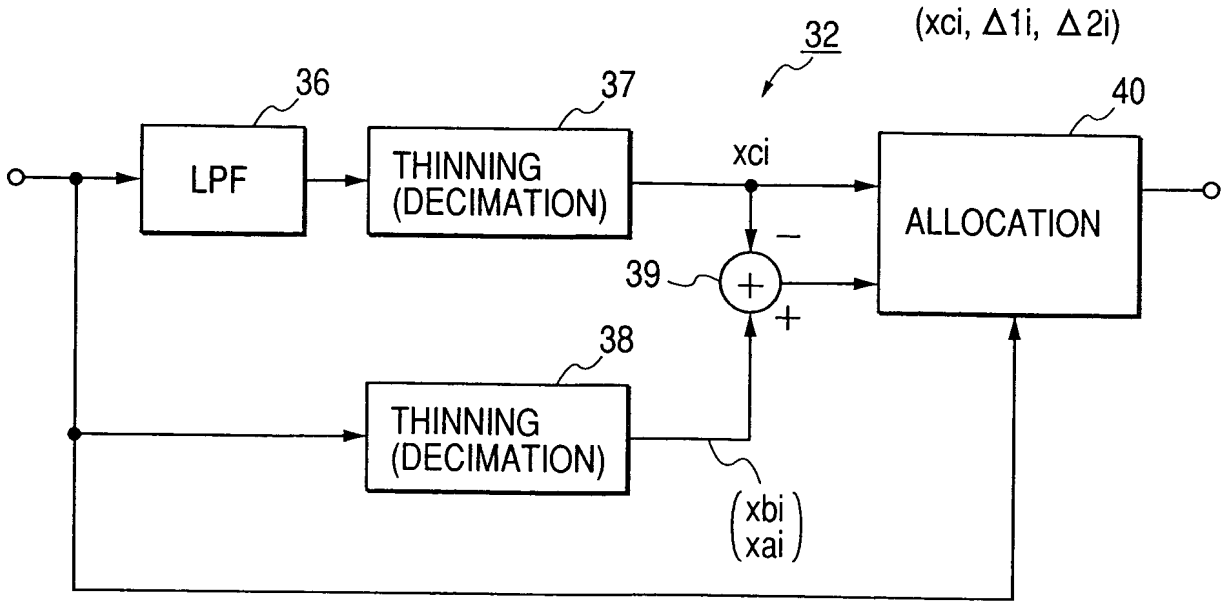

VIDEO SIGNAL
A / D
31V
ENCODER
32V
AUDIO SIGNAL
A / D
31
SIGNAL PROCESS
32
DVD FORMAT
34
ADDED INFORMATION
MOD
35A
MASTER MAKING APPARATUS
35B
35C

FIG. 37


LPF
36
THINNING (DECIMATION)
37
32
(xci, Δ1i, Δ2i)
xci
40
ALLOCATION
39
−
+
THINNING (DECIMATION)
38
xbi
xai

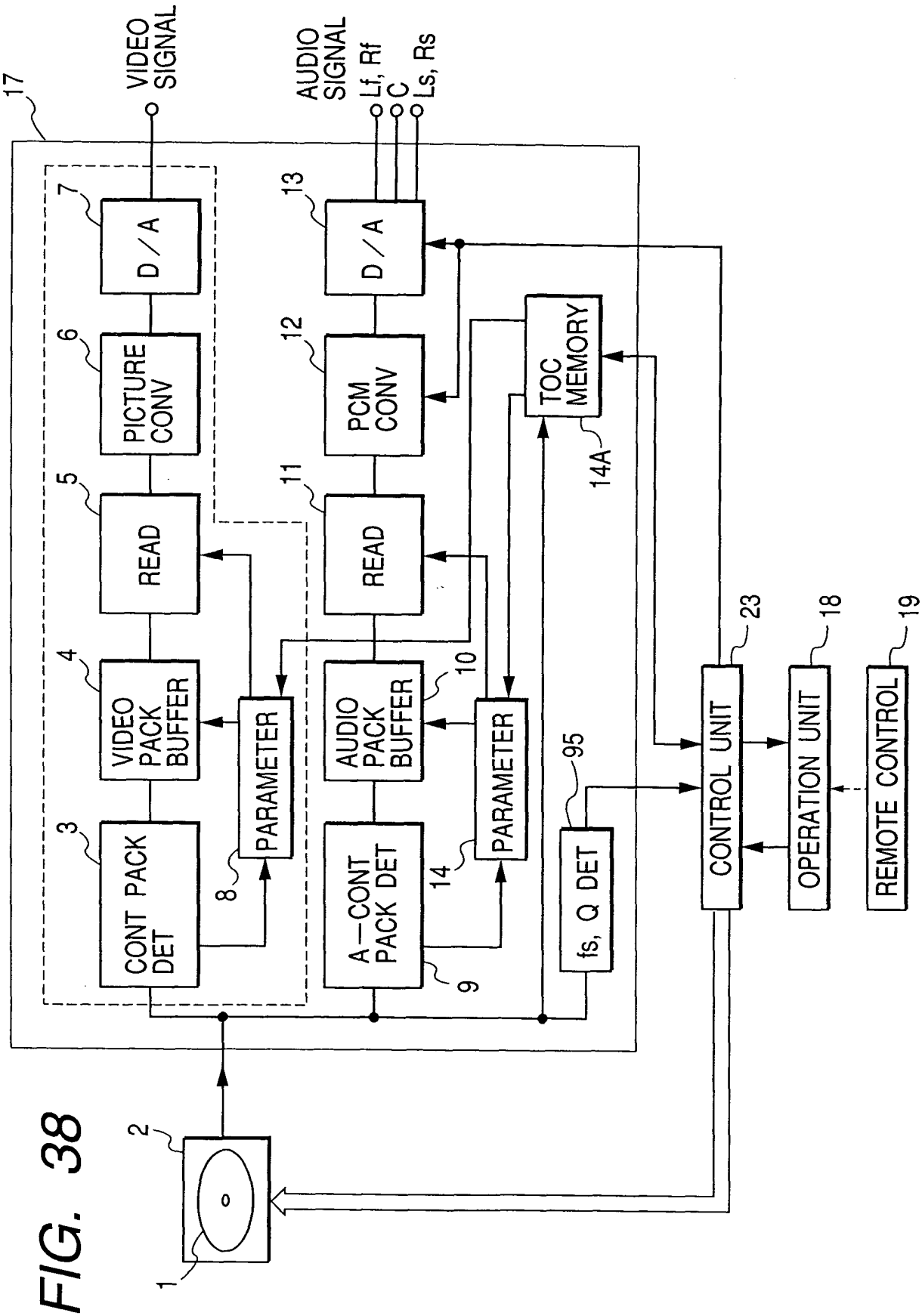
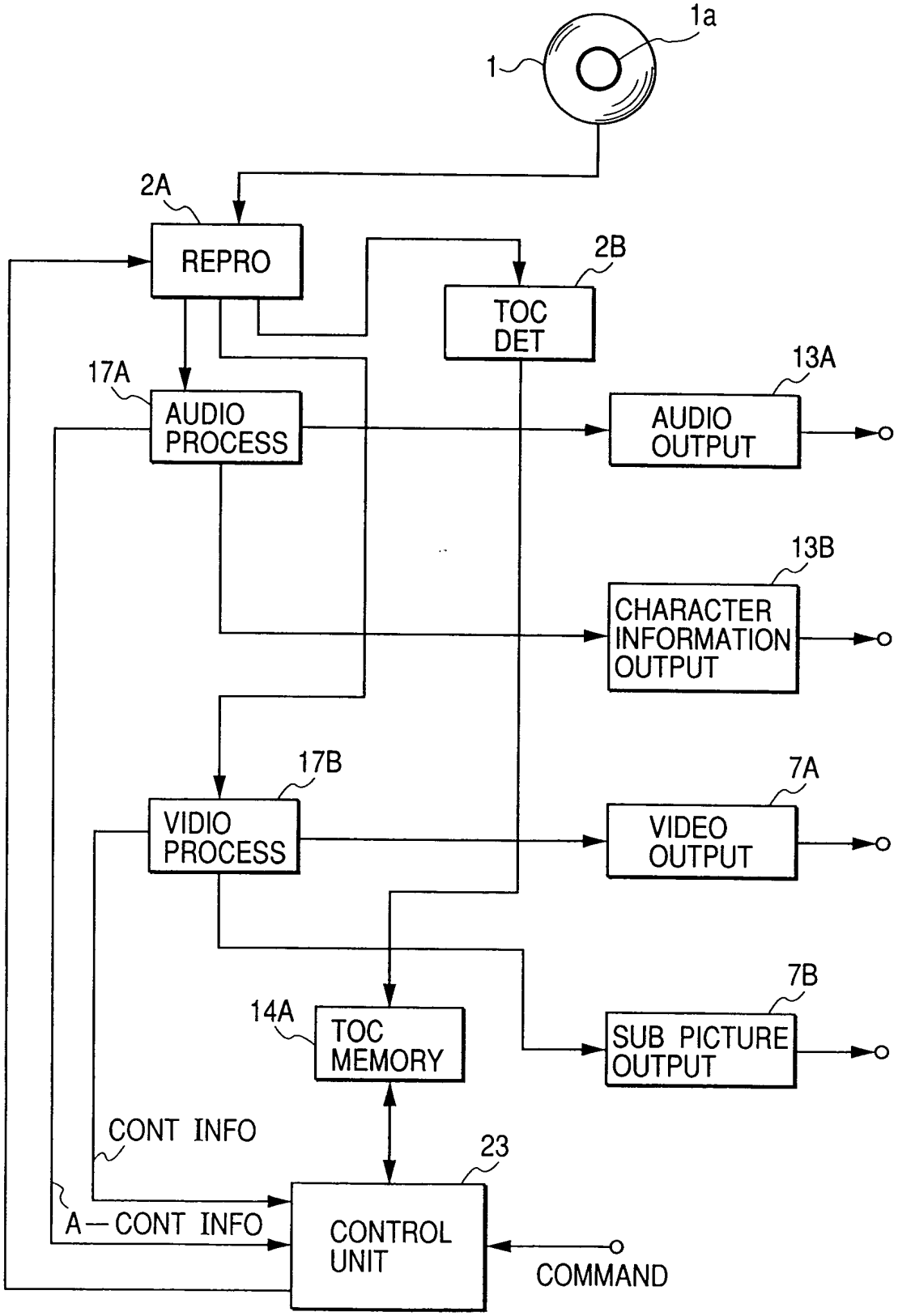

17
VIDEO SIGNAL
AUDIO SIGNAL
Lf, Rf
C
Ls, Rs
D / A
7
PICTURE CONV
6
READ
5
VIDEO PACK BUFFER
4
CONT PACK DET
3
PARAMETER
8
D / A
13
PCM CONV
12
READ
11
AUDIO PACK BUFFER
10
A—CONT PACK DET
14
9
PARAMETER
TOC MEMORY
14A
fs, Q DET
95
CONTROL UNIT
23
OPERATION UNIT
18
REMOTE CONTROL
19
2
1

FIG. 38

FIG. 39


1a
1
2A
REPRO
2B
TOC
DET
17A
AUDIO
PROCESS
13A
AUDIO
OUTPUT
13B
CHARACTER
INFORMATION
OUTPUT
17B
VIDIO
PROCESS
7A
VIDEO
OUTPUT
7B
14A
TOC
MEMORY
SUB PICTURE
OUTPUT
CONT INFO
23
A—CONT INFO
CONTROL
UNIT
COMMAND

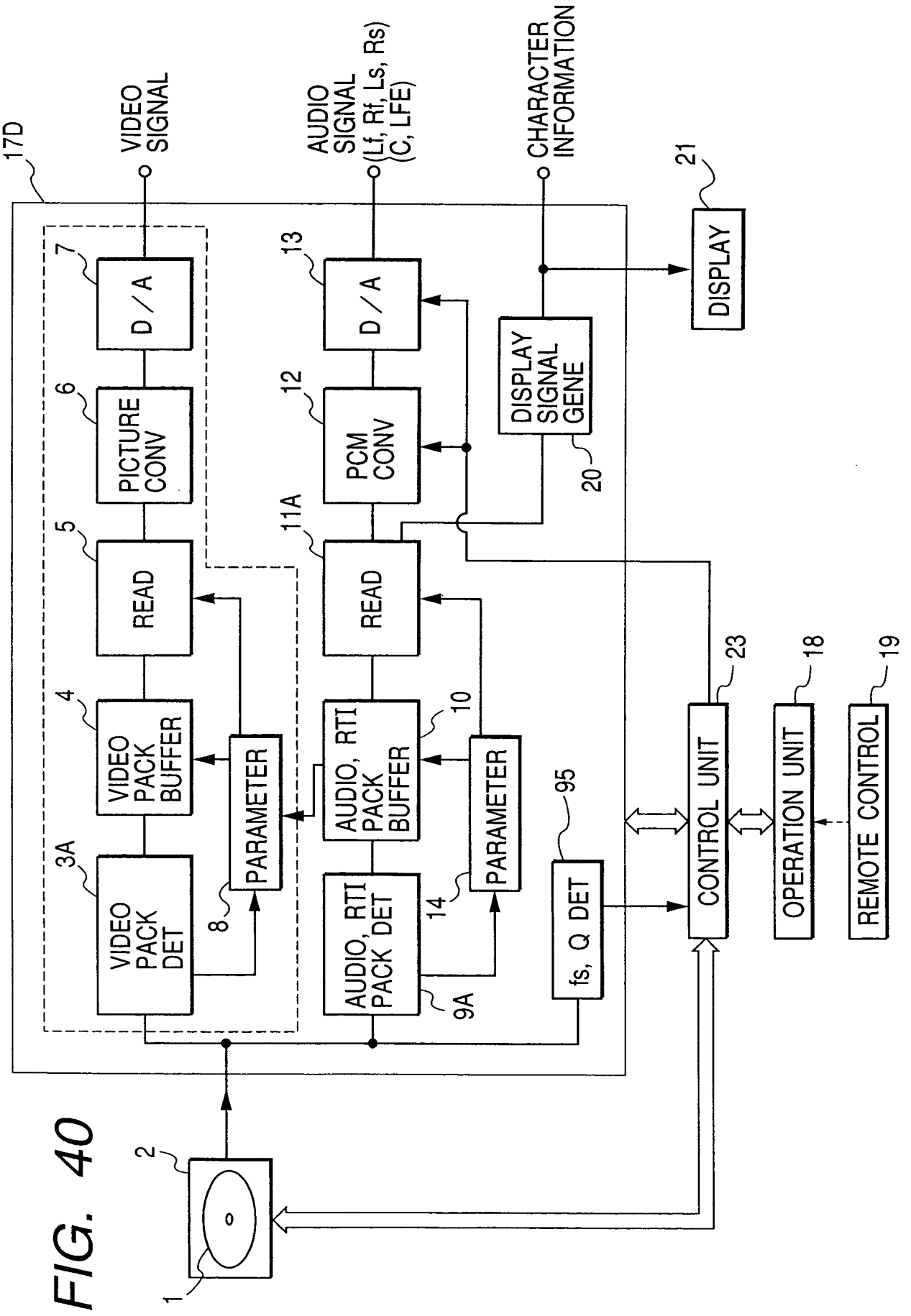

17D
VIDEO SIGNAL
AUDIO SIGNAL (Lf, Rf, Ls, Rs) (C, LFE)
CHARACTER INFORMATION
21
DISPLAY
7
D / A
13
D / A
6
PICTURE CONV
12
PCM CONV
DISPLAY SIGNAL GENE
20
5
READ
11A
READ
4
VIDEO PACK BUFFER
AUDIO, RTI PACK BUFFER
10
PARAMETER
PARAMETER
3A
VIDEO PACK DET
8
AUDIO, RTI PACK DET
14
9A
95
fs, Q DET
CONTROL UNIT
23
OPERATION UNIT
18
REMOTE CONTROL
19
2
1

FIG. 40

FIG. 41

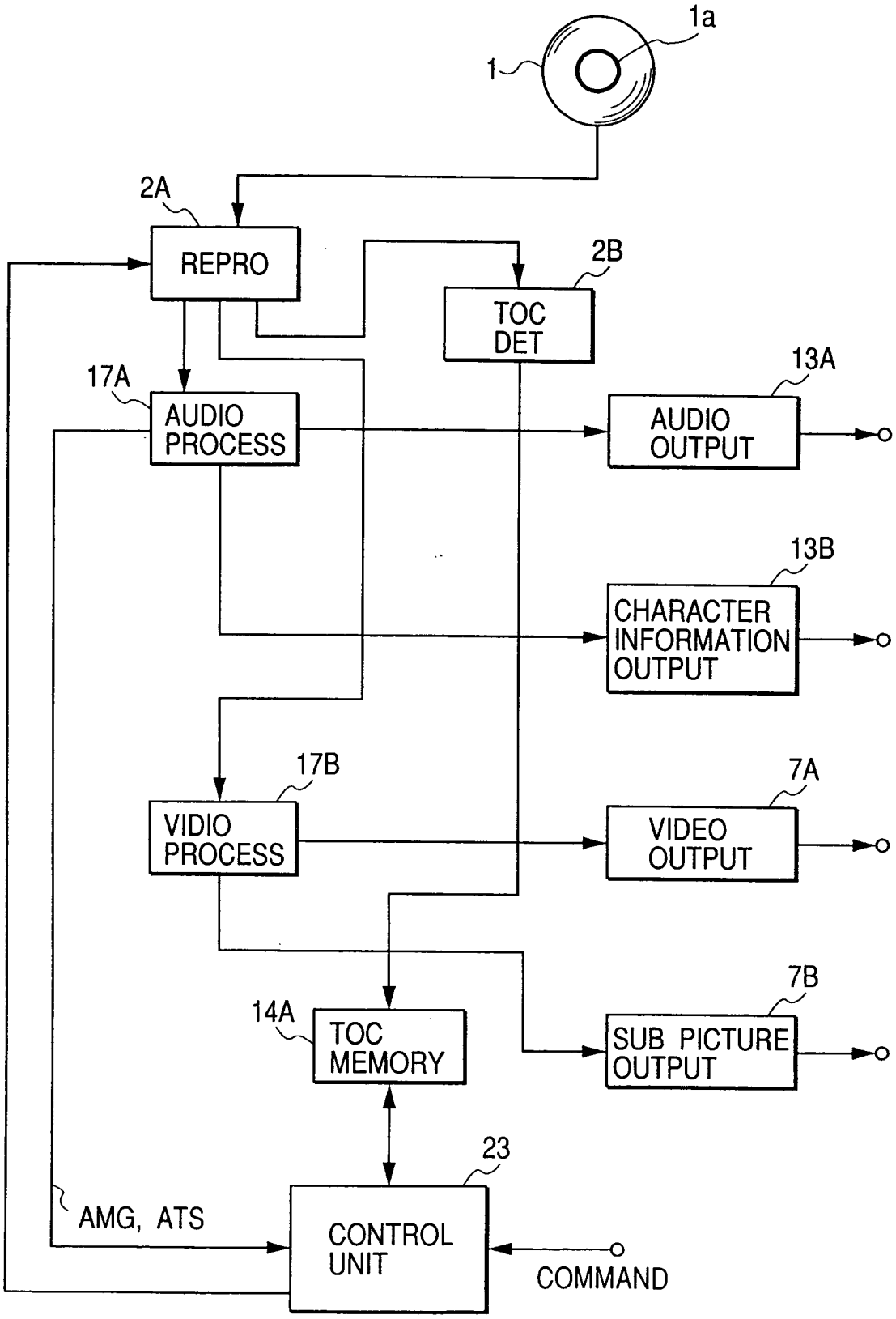

1a
1
2A
REPRO
2B
TOC
DET
17A
AUDIO
PROCESS
13A
AUDIO
OUTPUT
13B
CHARACTER
INFORMATION
OUTPUT
17B
VIDIO
PROCESS
7A
VIDEO
OUTPUT
7B
14A
TOC
MEMORY
SUB PICTURE
OUTPUT
23
AMG, ATS
CONTROL
UNIT
COMMAND

FIG. 42

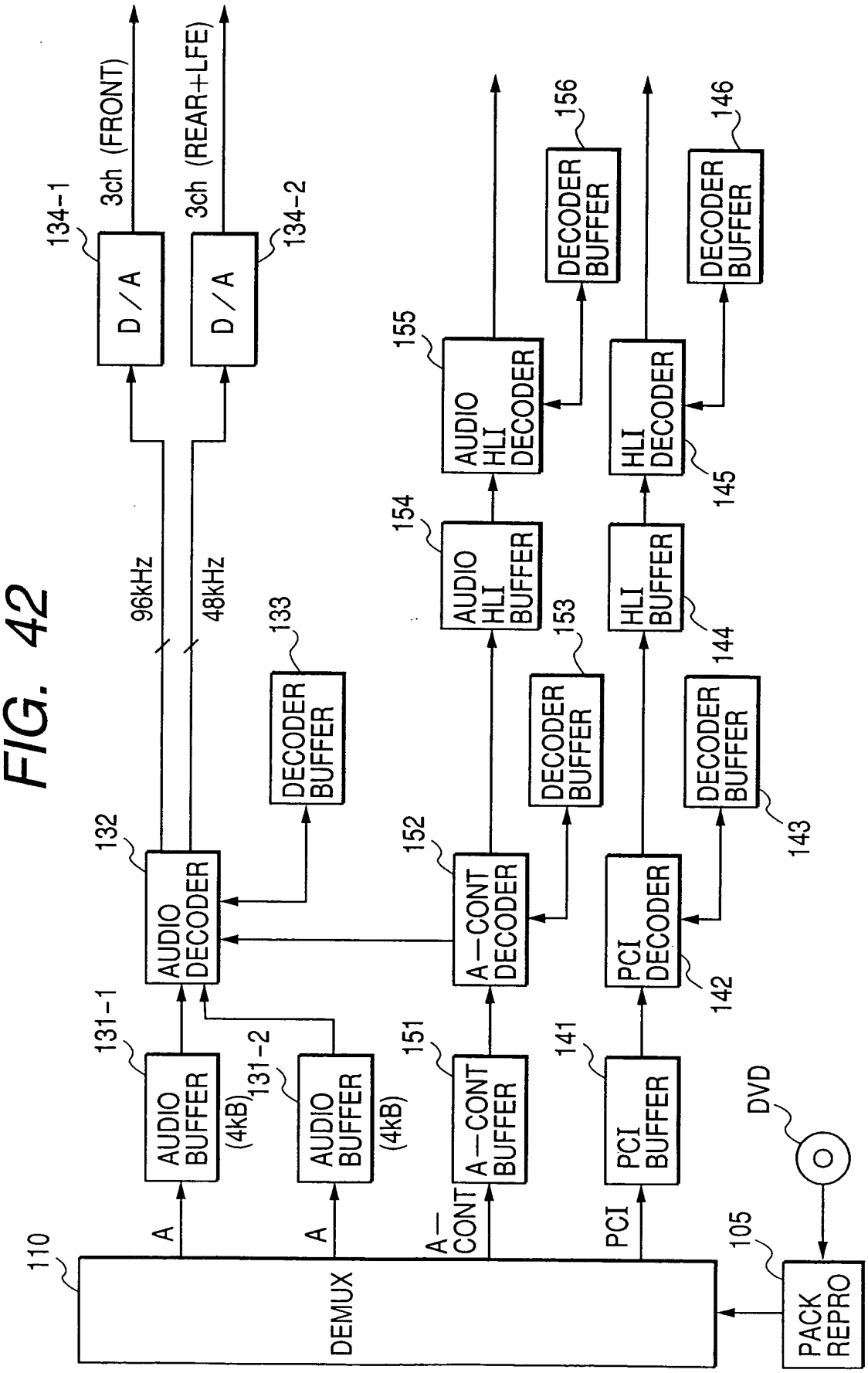
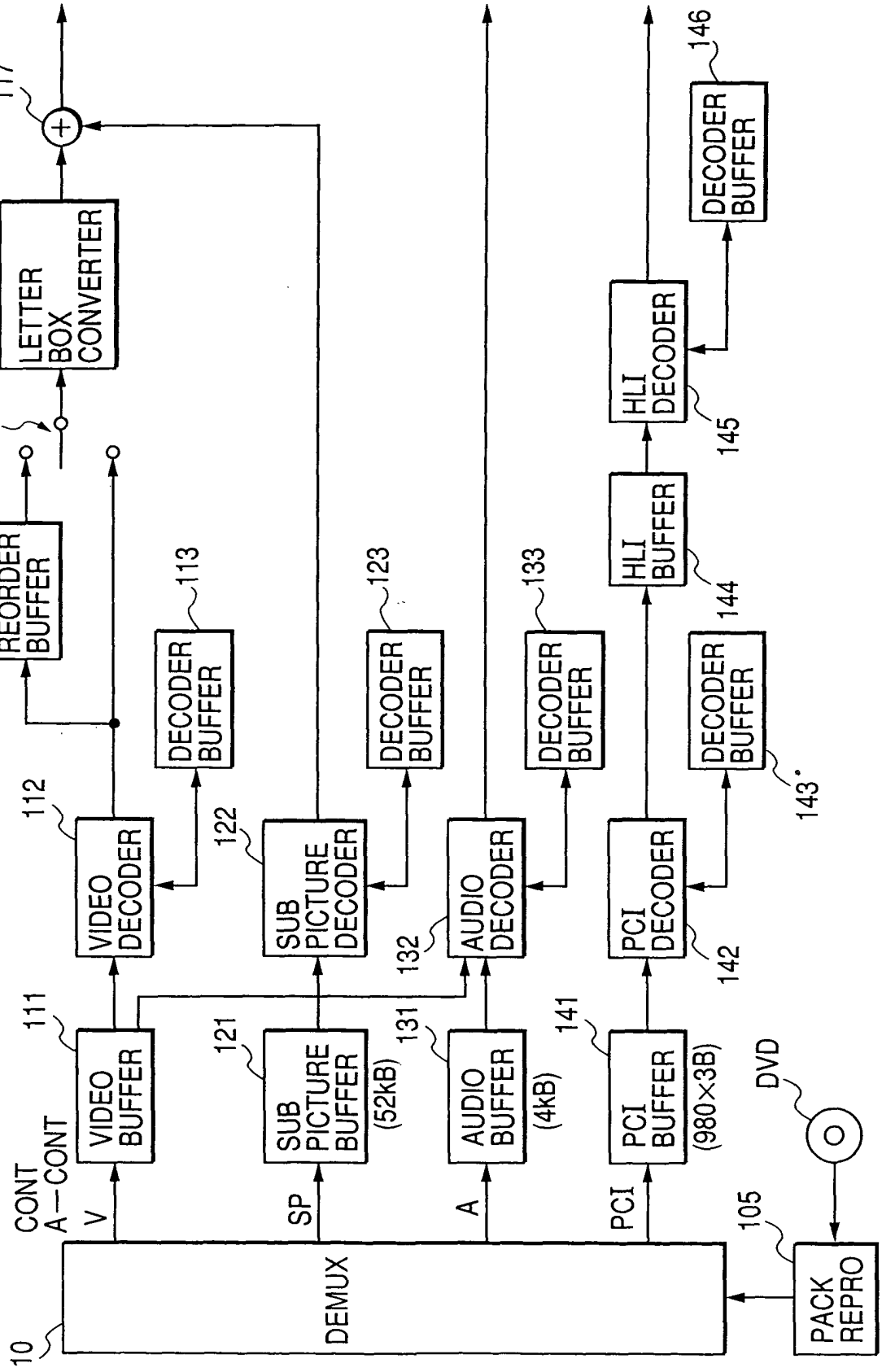

110
DEMUX
105
PACK REPRO
DVD
A
A
A—CONT
PCI
131-1
AUDIO BUFFER (4kB)
131-2
AUDIO BUFFER (4kB)
151
A—CONT BUFFER
141
PCI BUFFER
132
AUDIO DECODER
152
A—CONT DECODER
142
PCI DECODER
133
DECODER BUFFER
153
DECODER BUFFER
143
DECODER BUFFER
154
AUDIO HLI BUFFER
144
HLI BUFFER
155
AUDIO HLI DECODER
145
HLI DECODER
156
DECODER BUFFER
146
DECODER BUFFER
96kHz
48kHz
134-1
D / A
3ch (FRONT)
134-2
D / A
3ch (REAR+LFE)

FIG. 43


110
DEMUX
105
PACK REPRO
DVD
CONT
A—CONT
V
SP
A
PCI
111
VIDEO BUFFER
121
SUB PICTURE BUFFER
(52kB)
131
AUDIO BUFFER
(4kB)
141
PCI BUFFER
(980×3B)
112
VIDEO DECODER
122
SUB PICTURE DECODER
132
AUDIO DECODER
142
PCI DECODER
113
DECODER BUFFER
123
DECODER BUFFER
133
DECODER BUFFER
143
DECODER BUFFER
144
HLI BUFFER
145
HLI DECODER
146
DECODER BUFFER
114
REORDER BUFFER
115
116
LETTER BOX CONVERTER
117